

# Tongbaite ( $\text{Cr}_3\text{C}_2$ , $D_{5_{10}}$ ) Structure: A2B3\_oP20\_62\_2c\_3c-001

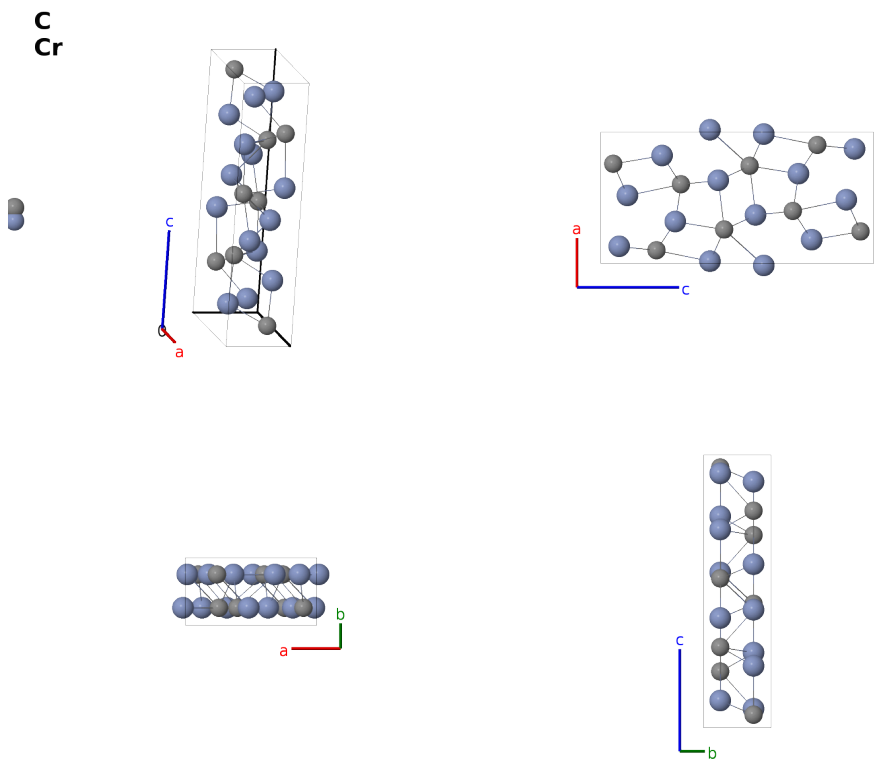
This structure previously used the label(s) **A2B3\_oP20\_62\_2c\_3c**. Calls to these addresses will be redirected here.

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<https://aflow.org/prototype-encyclopedia/KS86>

[https://aflow.org/prototype-encyclopedia/A2B3\\_oP20\\_62\\_2c\\_3c-001](https://aflow.org/prototype-encyclopedia/A2B3_oP20_62_2c_3c-001)



|                                    |                         |
|------------------------------------|-------------------------|
| Prototype                          | $\text{C}_2\text{Cr}_3$ |
| AFLOW prototype label              | A2B3_oP20_62_2c_3c-001  |
| <i>Strukturbericht</i> designation | $D_{5_{10}}$            |
| Mineral name                       | tongbaite               |
| ICSD                               | 15086                   |
| CCDC                               | 1595865                 |
| Pearson symbol                     | oP20                    |
| Space group number                 | 62                      |
| Space group symbol                 | $Pnma$                  |



$$\mathbf{B}_{19} = -x_5 \mathbf{a}_1 + \frac{3}{4} \mathbf{a}_2 - z_5 \mathbf{a}_3 = -ax_5 \hat{\mathbf{x}} + \frac{3}{4}b \hat{\mathbf{y}} - cz_5 \hat{\mathbf{z}} \quad (4c) \quad \text{Cr III}$$

$$\mathbf{B}_{20} = \left(x_5 + \frac{1}{2}\right) \mathbf{a}_1 + \frac{1}{4} \mathbf{a}_2 - \left(z_5 - \frac{1}{2}\right) \mathbf{a}_3 = a \left(x_5 + \frac{1}{2}\right) \hat{\mathbf{x}} + \frac{1}{4}b \hat{\mathbf{y}} - c \left(z_5 - \frac{1}{2}\right) \hat{\mathbf{z}} \quad (4c) \quad \text{Cr III}$$

## References

- [1] S. Rundqvist and G. Runnsjö, *Crystal Structure Refinement of  $\text{Cr}_3\text{C}_2$* , Acta Chem. Scand. **23**, 1191–1199 (1969), doi:10.3891/acta.chem.scand.23-1191.

## First cited in

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